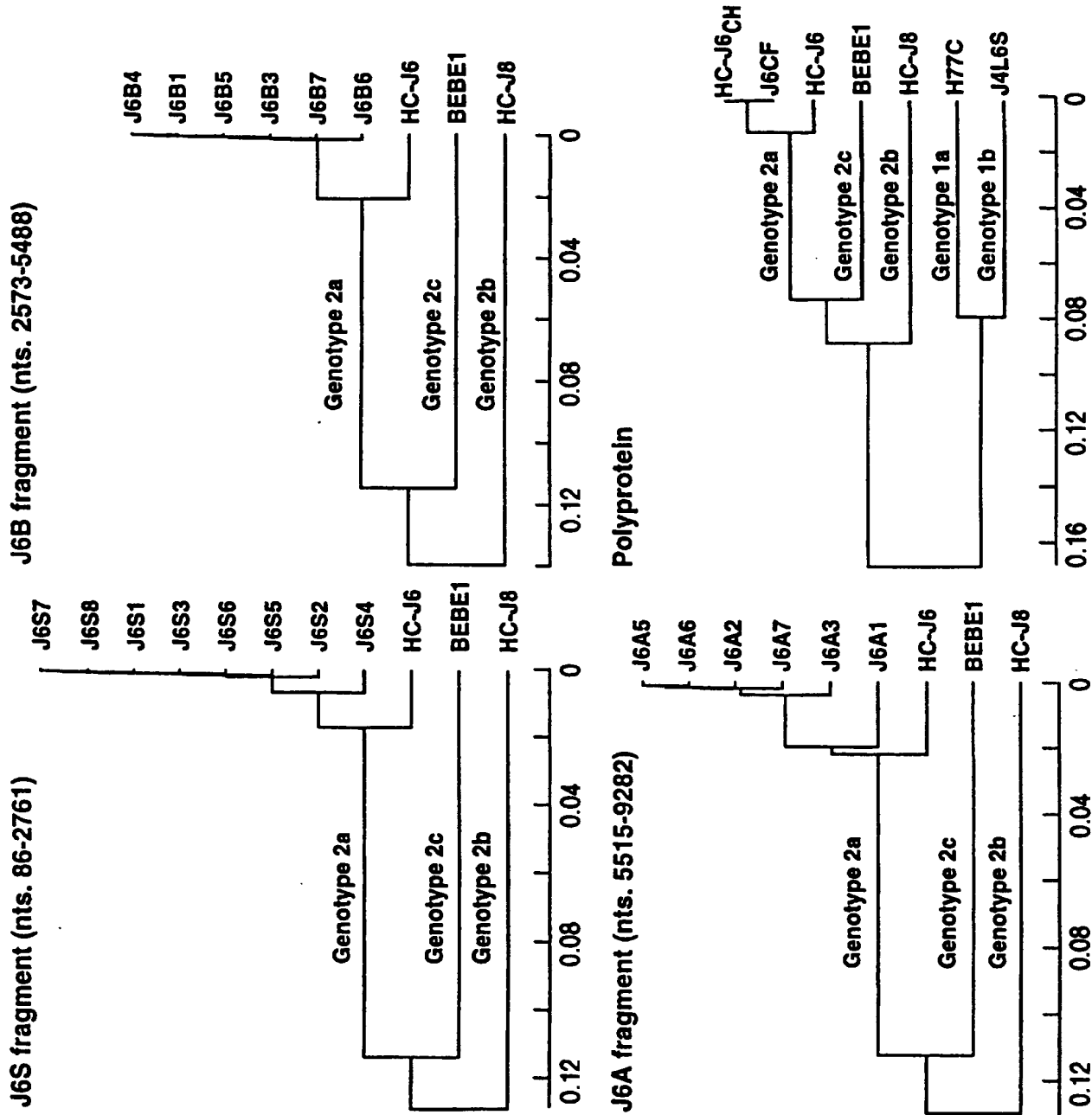


FIG. 1



09/000050


	375		419
HC-J6 _{CH}	LLLAAGVDA	RTHTVGGSAQT	TGRLTSLEDMGPRQK IQLVNTNGS
J6S1	.....	.....	.....
J6S2	.....	.....	.....
J6S3	.....	.....	.....
J6S5	.....	.....	.....
J6S6	.....	.....	.....
J6S7	.....	.....	.....
J6S8	.....	.....	.....
J6S4	.....	Q.....	...I.....
HC-J6	.....	Q.....T.HNART..GM.SL.A...	...I.....
			
		HVR1	

FIG. 3

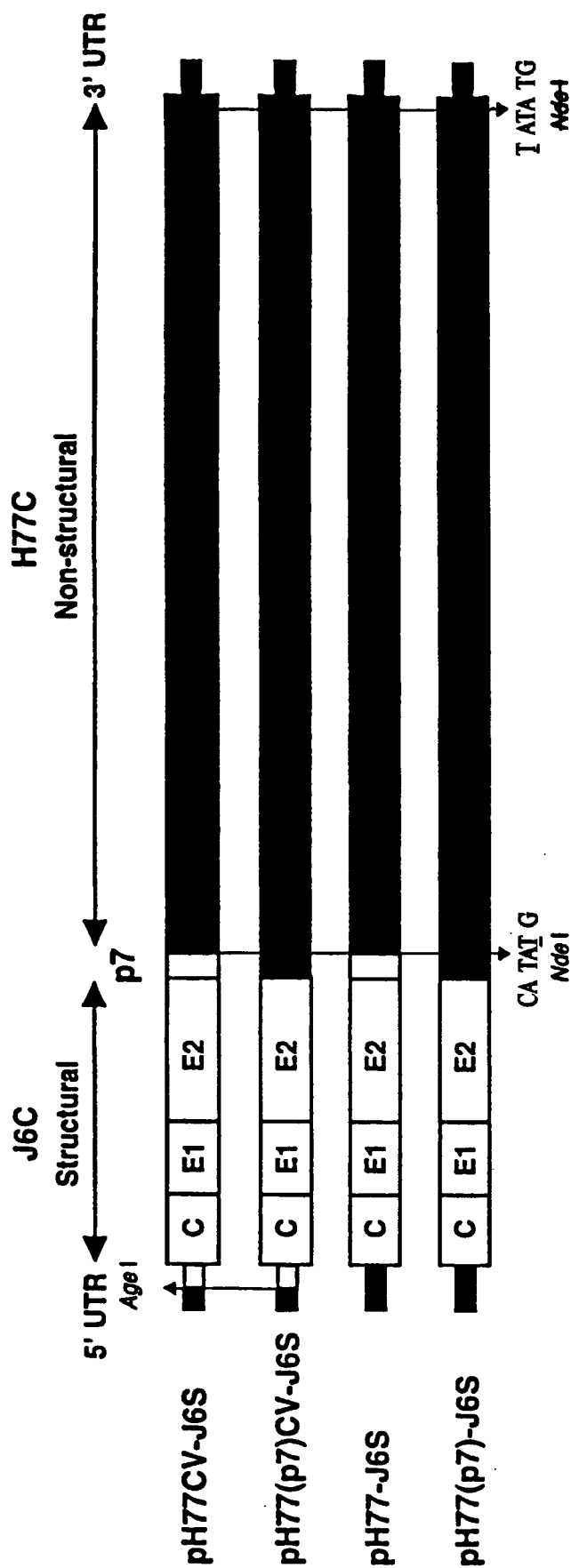


FIG. 4

5' Untranslated Region

FIG. 5A

	1	GCCAGCCCC	TGATGGGGC	GACACTCCAC	CATGAATCAC	TCCCCTGTGA	GGAACTACTG	TCTTCACGCA	GAAAGCGTCT	AGCCATGGCG	90
H77C		.....	.....	.....	.....	.....	.....	.....	.....	.....
H77CV-J6S		.....	.....	.....	.....	.....	.....	.....	.....	.....
H77(p7)CV-J6S		.....	.....	.....	.....	.....	.....	.....	.....	.....
H77-J6S		.....	.....	.....	.....	.....	.....	.....	.....	.....
H77(p7)-J6S		.....	.....	.....	.....	.....	.....	.....	.....	.....
J6CF		A..C.....	..A..A.....	.....G..	.....	.....	.....	.....	.....	.....
	91	TTAGTATGAG	TGTCTGTGAG	CCTCCAGGAC	CCCCCTGCC	GGGAGAGCCA	TAGTGGTCTG	CGGAACCGGT	GAGTACACCG	GAATGGCCAG	180
H77C		.....	.....	.....	.....	.....	.....	.....	.....	.....G.	
H77CV-J6S		.....	.....	.....	.....	.....	.....	.....	.....	.....G.	
H77(p7)CV-J6S		.....	.....	.....	.....	.....	.....	.....	.....	.....
H77-J6S		.....	.....	.....	.....	.....	.....	.....	.....	.....
H77(p7)-J6S		.....	.....	.....	.....	.....	.....	.....	.....	.....
J6CF		.....	.....A...	.....C..	.....	.....	.....	.....	.....	.....G.	
	181	GACGACCGGG	TCTTTTCTTG	GATAAACCCG	CTCAATGCCT	GGAGATTGG	GCGTGCCCC	GCAAGACTGC	TAGCCGAGTA	GTGTGGGTC	270
H77C		..A..T...	.....	.....G..	...T...C	..CC...	.....	.....	.....	..C.....T	
H77CV-J6S		..A..T...	.....	.....G..	...T...C	..CC...	.....	.....	.....	..C.....T	
H77(p7)CV-J6S		.....	.....	.....	.....	.....	.....	.....	.....	.....
H77-J6S		.....	.....	.....	.....	.....	.....	.....	.....	.....
H77(p7)-J6S		.....	.....	.....	.....	.....	.....	.....	.....	.....
J6CF		..A..T...	.....	.....G..	...T...C	..CC...	.....	.....	.....	..C.....T	
	271	GCGAAAGGCC	TTGTGGTACT	GCCTGATAGG	GTGCTTGCGA	GTGCCCCGGG	AGGTCTCGTA	GACCGTGAC	CATGAGCACC	AATCCTAAAC	360
H77C		.....	.....	.....	.....	.....	.....	.....	.....A	.....
H77CV-J6S		.....	.....	.....	.....	.....	.....	.....	.....A	.....
H77(p7)CV-J6S		.....	.....	.....	.....	.....	.....	.....	.....A	.....
H77-J6S		.....	.....	.....	.....	.....	.....	.....	.....A	.....
H77(p7)-J6S		.....	.....	.....	.....	.....	.....	.....	.....A	.....
J6CF		.....	.....	.....	.....	.....	.....	.....	.....A	.....

Age I

FIG. 5B

3' Untranslated Region

9375
 H77C TGAAGGTTGG GGTAACACT CCGGCTCTT AAGCCATTTC CTG (Polypyrimidine tract)81 AATGGTGGCT CCATCTTAGC 9518
 H77CV-J6S
 H77(p7)CV-J6S (Polypyrimidine tract)81
 H77-J6S (Polypyrimidine tract)81
 H77(p7)-J6S (Polypyrimidine tract)81
 J6CF .AG..CGCA CAC.TTAG.. A.ACT.CA.A GCTAAC.G.. C- (Polypyrimidine tract)132 ---

9519
 H77C CTTAGTCAG GCTAGCTGTG AAAGGTCCGT GAGCCGCATG ACTGCAGAGA GTGCTGATAC TGGCCTCTCT GCAGATCATG T 9599
 H77CV-J6S
 H77(p7)CV-J6S
 H77-J6S
 H77(p7)-J6S
 J6CFC.TA.. ..T.

E2/p7/NS2 Region

E2/p7
 730
 H77C RVCSCLMMLLISQAEA ALENLVILNAAASLAGTHGLVSFLVFFCFANWLKGRWVPGAVYALYGMWPLLLLLLALPQRAYA LDTEVAASCGGVLVG 825
 H77CV-J6S ...A...LI.LG.... ..K...H...A.SCN.FLY.VI..VA...I...V..L.T.S.T.L.SFS.....Q...
 H77(p7)CV-J6S ...A...LI.LG.... ..K...H...A.SCN.FLY.VI..VA...I...V..L.T.S.T.L.SFS.....Q...
 H77-J6S ...A...LI.LG.... ..K...H...A.SCN.FLY.VI..VA...I...V..L.T.S.T.L.SFS.....Q...
 H77(p7)-J6S ...A...LI.LG.... ..K...H...A.SCN.FLY.VI..VA...I...V..L.T.S.T.L.SFS.....Q...
 J6CF ...A...LI.LG.... ..K...H...A.SCN.FLY.VI..VA...I...V..L.T.S.T.L.SFS.....Q... Y.AS.HGQI.AAL..M

H77C

10	20	30	40	50	
1234567890	1234567890	1234567890	1234567890	1234567890	
GCCAGCCCC	TGATGGGGGC	GACACTCCAC	CATGAATCAC	TCCCTGIGA	50
GGAACACTG	TCTTCAAGCA	GAAAGCGTCT	AGCCATGGCG	TTAGTATGAG	100
TGTCGTGCAG	CCTOCAGGAC	CCCCCTCCC	GGGAGAGCCA	TAGTGGTCTG	150
CGGAACCGGT	GAGTACACCG	GAATTGCCAG	GAAGACGGG	TCCTTCTCTG	200
GATAAACCG	CTCAATGCTT	GGAGATTGCG	GCGTGGCCCC	GCAAGACTGC	250
TAGCCGAGTA	GTTGTGGGTC	GCGAAAGGCG	TTGTGGTACT	GCTGATAGG	300
GTGCTTGCGA	GTGCCCCGGG	AGGTCTCGTA	GACCGTGCAC	CATGAGCAAG	350
AATCCTAAAC	CTCAAAGAAA	AACCAAAGCT	AACACCAACC	GTCGCCCCACA	400
GGACGTCAAG	TTCOCGGGTG	GCGGTACAGT	CGTTGGTGGG	GTTTACTTGT	450
TGCCGCGCAG	GGGCCCCAGA	TTGGGTGTGC	GCGCGACGAG	GAAGACTTCC	500
GAGCGGTCCG	AACCTCGAGG	TAGACGTCCG	CCTATCCCCA	AGGCAGGTGG	550
GCCCCAGGGC	AGGAOCTGGG	CTCAGCCCGG	GTACCCCTTG	CCCTCTATG	600
GCAATGAGGG	TTGCGGGTGG	GCGGGATGGC	TCTGTCTTCC	CCGTGGCTCT	650
CGGCCTAGCT	GGGCCCCCAC	AGACCCCGCG	CGTAGGTCCG	GCAATTGGGG	700
TAAGGTTCATC	GATACCCCTTA	CGTCCGGCTT	CGCCGACCTC	ATGGGGTACA	750
TACCGCTCGT	CGCGCCCCCT	CTTGGAGGGG	CTGCCAGGGC	CCTGGCGCAT	800
GGCGTCCGGG	TTCGTGAAGA	CGGCGTGAAC	TATGCAACAG	GGAACCTTCC	850
TGGTGTGCTCT	TCTCTATCTT	TCTTCTGGC	CCTGCTCTCT	TGCTGACTG	900
TGCCCCGCTTC	AGCCTACCAA	GTGCGCAATT	CCTCGGGGCT	TTACCATGTC	950
ACCAATGATT	GCCCTAACTC	GAGTATTGTG	TACGAGGCGG	CCGATGCCAT	1000
CCTGCACACT	CCGGGGTGTG	TCCCTTGGGT	TCCGAGGGGT	AACGCCCTCGA	1050
GGTGTGTTGGT	GGCGGTGACC	CCACCGGTGG	CCACCAGGGA	CGGCAAACTC	1100
CCCACAACGC	AGCTTCGACG	TCATATCGAT	CTGCTTGTGG	GGAGCGGCAC	1150
CCTCTGCTCG	GCCCTCTACG	TGGGGGACCT	GTGCGGGTCT	GTCCTTCTTG	1200
TTGGTCAACT	GTTTAACTTC	TCTCCCAGGC	GCCACTGGAC	GACGCAAGAC	1250
TGCAATTGTT	CTATCTATCC	CGGOCATATA	ACGGGTTCATC	GCATGGCATG	1300
GGATATGATG	ATGAACCTGGT	CCCCTACGGC	AGCGTTGGTG	GTAGCTCAGC	1350
TGCTCCGGAT	CCACAAGCC	ATCATGGACA	TGATCGCTGG	TGCTCACTGG	1400
GGAGTCCCTGG	CGGGCATAGC	GTATTTCTCC	ATGGTGGGGA	ACTGGGGGAA	1450
GGTCCCTGGTA	GTCGTGCTGC	TATTTGCGGG	CGTCGACGGG	GAAACCCACG	1500
TCACCGGGGG	AAATGCCGGC	CGCACCAAGG	CTGGGCTTGT	TGGTCTCCTT	1550
ACACCAGGGG	CCAAGCAGAA	CATCCAACCTG	ATCAACACCA	ACGGCAGTTG	1600
GCACATCAAT	AGCACGGGCT	TGAATTGCAA	TGAAAGCCTT	AACACGGGCT	1650
GGTTAGCAGG	GCTCTTCTAT	CAACACAAAT	TCAACTCTTC	AGGCTGTCTT	1700
GAGAGGTTGG	CCAGCTGCGG	ACGCTTACCC	GATTTTGCCC	AGGCTGGGG	1750
TCTTATCAGT	TATGCCAAGC	GAAGCGGCTT	CGACGAAGCC	CCCTACTGCT	1800
GGCACTACCC	TCCAAGACCT	TGTGGCATTTG	TGCCCCGAAA	GAGCGTGTGT	1850
GGCCCCGTAT	ATTGCTTCAC	TCCCAGCCCC	GTGGTGGTGG	GAACGACCGA	1900

FIG. 6A

SUBSTITUTE SHEET (RULE 26)

H77C

10	20	30	40	50	
1234567890	1234567890	1234567890	1234567890	1234567890	
CAGGTCGGGC	GCGCTTACCT	ACAGCTGGGG	TGCAAATGAT	ACGGATGICT	1950
TCGTCCCTTAA	CAACACCAGG	CCACCGCTGG	GCAATTGGTT	CGGTGTGTAOC	2000
TGGATGAACT	CAACTGGATT	CACCAAAGTG	TGOGGAGOGC	COOCTGTGTG	2050
CATCGGAGGG	GTGGGCAACA	ACAOCCTTGCT	CTGCCCCACT	GATTGCTTCC	2100
GCAAACATCC	GGAAGCCACA	TACTCTCGGT	GCGGCTCOGG	TCCCTGGATT	2150
ACACCCAGGT	GCATGGTCCA	CTACCCGTAT	AGGCTTTGGC	ACTATCCTTG	2200
TACCATCAAT	TACACCATAT	TCAAAGTCAG	GATGTAOGTG	GGAGGGGTCC	2250
AGCACAGGCT	GGAAGCGGCC	TGCAACTTGA	CGGGGGGCGA	ACGCTGTGAT	2300
CTGGAAGACA	GGGACAGGTC	CGAGCTCAGC	COGTTGCTGC	TGTCCACCAC	2350
ACAGTGGCAG	GTCCCTTCOGT	GTTCCTTTCAC	GACCTTGCCA	GOCTTGTCCA	2400
CCGGCCTCAT	CCACCTCCAC	CAGAACATTG	TGGACGTGCA	GTACTTGTAC	2450
GGGGTAGGGT	CAAGCATGCC	GTCCCTGGCC	ATTAAGTGGG	AGTACGTCTG	2500
TCTCCTGTTC	CTTCTGCTTG	CAGACGCGCG	CGTCTGCTCC	TGCTTGTGGA	2550
TGATGTTACT	CATATCCCAA	GCGGAGGCGG	CTTTGGAGAA	CCTCGTAATA	2600
CTCAATGCAG	CATCCCTGGC	CGGGACGCAC	GGTCTTGTGT	CCTTCCTCGT	2650
GTTCCTCTGC	TTTGGGTGGT	ATCTGAAGGG	TAGGTGGGTG	CCCGAGCGCG	2700
TCTACGCCCT	CTACGGGATG	TGGCCTCTCC	TCCTGCTCCT	GCTGGCGTTG	2750
CCTCAGCGGG	CATACGCACT	GGACACGGAG	GTGGCCGCGT	CGTGTGGCGG	2800
CGTTGTCTTT	GTGGGGTTAA	TGGCGCTGAC	TCTGTGCGCA	TATTACAAGC	2850
GCTATATCAG	CTGGTGCATG	TGGTGGCTTC	AGTATTTTCT	GACCAGAGTA	2900
GAAGCGCAAC	TGCACGTGTG	GGTCCCCCCC	CTCAACGTCC	GGGGGGGGCG	2950
CGATGCCGTC	ATCTTACTCA	TGTGTGTAGT	ACACCCGACC	CTGGTATTTG	3000
ACATCACCAA	ACTACTCCTG	GCCATCTTCG	GACCCCTTTG	GATTCCTTCA	3050
GCCAGTTTGC	TAAAGTCCC	CTACTTCGTG	CGGTTCAAG	GCCTTCTCCG	3100
GATCTGCCCG	CTAGCGCGGA	AGATAGCGCG	AGGTCAATTAC	GTGCAAATGG	3150
CCATCATCAA	GTTAGGGGGG	CTTACTGGCA	CCTATGTGTA	TAAOCATCTC	3200
ACCCCTCTTC	GAGACTGGGC	GCACAACGGC	CTGCGAGATC	TGGCCGTGGC	3250
TGTGGAACCA	GTGCTCTTCT	CCCGAATGGA	GACCAAGCTC	ATCAGGTGGG	3300
GGGCAGATAC	CGCCGCGTGC	GGTGACATCA	TCAAOGGCTT	GCCCGTCTCT	3350
GCCCGTAGGG	GCCAGGAGAT	ACTGCTTGGG	CCAGCCGACG	GAATGGTCTC	3400
CAAGGGGTGG	AGGTTGCTGG	CGCCCATCAC	GGCGTACGOC	CAGCAGACGA	3450
GAGGCCTCCT	AGGGTGTATA	ATCACCAGCC	TGACTGGCCG	GGACAAAAC	3500
CAAGTGGAGG	GTGAGGTCCA	GATCGTGTCA	ACTGCTACCC	AAACCTTCTT	3550
GGCAACGTGC	ATCAATGGGG	TATGCTGGAC	TGCTTACCAC	GGGGCCGGAA	3600
CGAGGACCAT	CGCATCACCC	AAGGGTCTTG	TCATCCAGAT	GTATACCAAT	3650
GTGGACCAAG	ACCTTGTGGG	CTGGCCCGCT	CCTCAAGGTT	CCCGCTCATT	3700
GACACCCGTG	ACCTGCGGCT	CCTGGACCTT	TTACCTGGTC	ACGAGGCACG	3750
CCGATGTCAT	TCCCGTGGCG	CGGCGAGGTG	ATAGCAGGGG	TAGCCTGCTT	3800

FIG. 6B

SUBSTITUTE SHEET (RULE 26)

H77C

10	20	30	40	50	
1234567890	1234567890	1234567890	1234567890	1234567890	
TCGCCCCGGC	CCATTTCCTA	CITGAAAGGC	TCCTCGGGGG	GTCGCTGTT	3850
GTGCCCCGGC	GGACACGGCG	TGGGCTATT	CAGGGGCGCG	GTGTGCACCC	3900
GTGGAGTGGC	TAAAGCGGTG	GACTTTATCC	CTGTGGAGAA	CCTAGGGACA	3950
ACCATGAGAT	CCCCGGTGTT	CACGGACAAC	TCCTCTCCAC	CAGCAGTGCC	4000
CCAGAGCTTC	CAGGTGGGCC	ACCTGCATGC	TCCACCGGC	AGCGGTAGA	4050
GCACCAAGGT	CCGGCTGGG	TACGCAGGCC	AGGGCTACAA	GGTGTGGTG	4100
CTCAACCCCT	CTGTGTCTGC	AACGCTGGGC	TTTGGTGCTT	ACATGTCCAA	4150
GGCCCATGGG	GTGTATCCTA	ATATCAGGAC	CGGGGTGAGA	ACAATTACCA	4200
CTGGCAGGCC	CATCACGTAC	TCCACCTAAG	GCAAGTTCT	TGCGACGGC	4250
GGGTGCTCAG	GAGGTGCTTA	TGACATAATA	ATTTGTGACG	AGTGCCACTC	4300
CACGGATGCC	ACATCCATCT	TGGGCATCGG	CACGTGCTTT	GACCAAGCAG	4350
AGACTGCGGG	GGCGAGACTG	GTGTGTCTCG	CCACTGCTAC	CCCTCCGGGC	4400
TCGTCACTG	TGTCCCATCC	TAACATCGAG	GAGGTGTCTC	TGTCCACCAC	4450
CGGAGAGATC	CCCTTTTACG	GCAAGGCTAT	CCCCCTCGAG	GTGATCAAGG	4500
GGGGAAGACA	TCTCATCTTC	TGCCACTCAA	AGAAGAAGTG	CGACGAGCTC	4550
GCCGCGAAGC	TGGTCGCATT	GGGCATCAAT	GCCGTGGCCT	ACTACCGCGG	4600
TCTTGACGTG	TCTGTCTATC	CGACCAGCGG	CGATGTGTGC	GTCGTGTGCA	4650
CCGATGCTCT	CATGACTGGC	TTTACCGGGG	ACTTCGACTC	TGTGATAGAC	4700
TGCAACACGT	GTGTCACTCA	GACAGTCGAT	TTCAGCCTTG	ACCCTACCTT	4750
TACCATTTGAG	ACAACCACGC	TCCCCCAGGA	TGCTGTCTCC	AGGACTCAAC	4800
GCCGGGGCAG	GACTGGCAGG	GGGAAGCCAG	GCATCTATAG	ATTGTGTGCA	4850
CCGGGGGAGC	GCCCCCTCGG	CATGTTCGAC	TGTCGCTCC	TCTGTGAGTG	4900
CTATGACGGG	GGCTGTGCTT	GGTATGAGCT	CAGGCCCGCC	GAGACTACAG	4950
TTAGGCTACG	AGCGTACATG	AACACCCCGG	GGCTTCCCGT	GTGCCAGGAC	5000
CATCTTGAAT	TTTGGGGAGG	CGTCTTTACG	GGCTCACTC	ATATAGATGC	5050
CCACTTTTFA	TCCACAGCAA	AGCAGAGTGG	GGAGAACTTT	OCTTACCTGG	5100
TAGCGTACCA	AGCCACCGTG	TGCGCTAGGG	CTCAAGCCCC	TCCCCCATCG	5150
TGGGACCAGA	TGTGGAAGTG	TTTGATCCGC	CTTAAACCCA	CCCTCCATGG	5200
GCCAACACCC	CTGCTATACA	GACTGGGGGC	TGTTTCAGAAT	GAAGTCACCC	5250
TGACGCACCC	AATCACCAAA	TACATCATGA	CATGCATGTC	GGCGACCTG	5300
GAGGTGCTCA	CGAGCACCTG	GGTGCTCGTT	GGGGGGGTC	TGGCTGCTCT	5350
GGCCGCGTAT	TGCCTGTCAA	CAGGCTGGGT	GGTCATAGTG	GGCAGGATCG	5400
TCTTGTCCGG	GAAGCCGGCA	ATTATACCTG	ACAGGGAGGT	TCTCTACCCAG	5450
GAGTTCGATG	AGATGGAAGA	GIGCTCTCAG	CACCTACCGT	ACATCGAGCA	5500
AGGGATGATG	CTCGCTGAGC	AGTTCAAGCA	GAAGGCCCTC	GGCTCCCTGC	5550
AGACCGCGTC	CCGCCATGCA	GAGGTATATCA	CCCTGCTGT	CCAGACCAAC	5600
TGGCAGAAAC	TCGAGGTCTT	TTGGGCGAAG	CACATGTGGA	ATTTCATCAG	5650
TGGGATACAA	TACTTGGCGG	GCCTGTCAAC	GCTGCCCTGGT	AACCCCGCCA	5700

FIG. 6C

SUBSTITUTE SHEET (RULE 26)

H77C

10	20	30	40	50	
1234567890	1234567890	1234567890	1234567890	1234567890	
TTGCTTCATT	GATGGCTTTT	ACAGCTGCCG	TCACCAGCCC	ACTAACCCT	5750
GGCCAAACCC	TCCTCTTCAA	CATATTGGGG	GGGTGGGTGG	CTGCCCAGCT	5800
CGCCGCCCCC	GGTGCCGCTA	CTGCCCTTGT	GGGTGCTGGC	CTAGCTGGCG	5850
CCGCCATCGG	CAGCGTTGGA	CTGGGGAAGG	TCCTCGTGGG	CATTCTTGCA	5900
GGGTATGGCG	CGGCGGTGGC	GGGAGCTCTT	GTAGCATTCG	AGATCATGAG	5950
CGGTGAGGTC	CCCTCCAGCG	AGGAOCTGGT	CAATCTGCTG	CCGCCATCC	6000
TCTCGOCTGG	AGCCCTTGTA	GTGGGTGGTG	TCTGCGCAGC	AATACTGGCG	6050
CGGCAOCTTG	GCCCGGGGGA	GGGGGCAGTG	CAATGGATGA	AOCGGCTAAT	6100
AGCCTTCGCG	TCCCGGGGGA	ACCATGTTTC	CCCCAOGCAC	TACGTGCGCG	6150
AGAGCGATGC	AGCCGCCCCG	GTCAC TGCCA	TACTCAGCAG	CCTCACTGTA	6200
ACCCAGCTCC	TGAGGCGACT	GCATCAGTGG	ATAAGCTCGG	AGTGTAOCAC	6250
TCCATGCTCC	GGTTCCTGGC	TAAGGGACAT	CTGGGACTGG	ATATGCGAGG	6300
TGCTGAGCGA	CTTTAAGACC	TGGCTGAAAG	CCAAGCTCAT	GCCACAAC TG	6350
CCTGGGATTC	CCTTTGTGTC	CTGCCAGCGC	GGGTATAGGG	GGGTCTGGCG	6400
AGGAGACGGC	ATTATGCACA	CTCGCTGCCA	CTGTGGAGCT	GAGATCACTG	6900
GACATGTCAA	AAACGGGACG	ATGAGGATCG	TGGTTCCTAG	GACCTGCAGG	6950
AACATGTGGA	GTGGGACGTT	CCCCATTAAAC	GCCTACACCA	CGGGCCCC TG	6550
TACTCCCTTT	CCTGCGCCGA	ACTATAAGTT	CGCGCTGTGG	AGGGTGTCTG	6600
CAGAGGAATA	CGTGGAGATA	AGGCGGGTGG	GGGACTTCCA	CTACGTATCG	6650
GGTATGACTA	CTGACAATCT	TAAATGCCCG	TGCCAGATCC	CATCGCCCCG	6700
ATTTTTCACA	GAATTGGACG	GGGTGCGCCT	ACACAGGTTT	GCGCCCCCTT	6750
GCAAGCCCTT	GCTGCGGGAG	GAGGTATCAT	TCAGAGTAGG	ACTCCACGAG	6800
TACCCGGTGG	GGTGGCAATT	ACCTTGCGAG	CCCGAACCGG	ACGTAGCCGT	6850
GTTGACGTCC	ATGCTCACTG	ATCCCTCCCA	TATAACAGCA	GAGGCGGCCG	6900
GGAGAAGGTT	GGCGAGAGGG	TCACCCCTTT	CTATGGCCAG	CTCCTGGCT	6950
AGCCAGCTGT	CCGCTCCATC	TCTCAAGGCA	ACTTGCACCG	CCAACCATGA	7000
CTCCCTTGAC	GCCGAGCTCA	TAGAGGCTAA	CCTCCTGTGG	AGGCAGGAGA	7050
TGGGCGGCAA	CATCAOCAGG	GTTGAGTCAG	AGAACAAGT	GGTGATTCTG	7100
GACTCCTTCG	ATCCGCTTGT	GGCAGAGGAG	GATGAGCGGG	AGGTCTCCGT	7150
ACCTGCAGAA	ATTCTGCGGA	AGTCTCGGAG	ATTGCGCCCG	GCCCTGCCCG	7200
TCTGGGCGCG	GCCGGA CTAC	AACCCCCCGC	TAGTACAGAC	GTGGAAAAAG	7250
CCTGACTACG	AACCACCTGT	GGTCCATGGC	TGCCCCCTAC	CAOCTCCACG	7300
GTCCCCCTCT	GTGCCTCCGC	CTCGGAAAAA	GCGTACGGTG	GTCTTCACCG	7350
AATCAACCCCT	ATCTACTGCC	TGCGCCGAGC	TGCGACCAA	AAGTTTGTGC	7400
AGCTCCTCAA	CTTCCGGCAT	TACGGGCGAC	AATAOGACAA	CATCCTCTGA	7450
GCCCCGCCCT	TCTGGCTGCC	CCCCCGACTC	CGAOGTTGAG	TCCTATTCTT	7500
CCATGCCCCC	CCTGGAGGGG	GAGCCTGGGG	ATCCGGATCT	CAGCGACGGG	7550
TCATGGTCCA	CGTCACTAG	TGGGCGCGAC	ACGGAAGATG	TCGTGTGCTG	7600

FIG. 6D

SUBSTITUTE SHEET (RULE 26)

H77C

10	20	30	40	50	
1234567890	1234567890	1234567890	1234567890	1234567890	
CTCAATGICT	TATTCCTGGA	CAGGCGCACT	CGTCACCCCG	TGCGCTGCGG	7650
AAGAACAAAA	ACTGCCCATC	AAGGCACTGA	GCAACTOGTT	GCTAOGCCAT	7700
CACAATCTGG	TGTATTCCAC	CACTTCACGC	AGTGCTTGCC	AAAGGCAGAA	7750
GAAAGTCACA	TTTGACAGAC	TGCAAGTTCT	GGACAGCCAT	TACCAGGACG	7800
TGCTCAAGGA	GGTCAAAGCA	GCGGCGTCAA	AAGTGAAGGC	TAACTTGCTA	7850
TCOGTAGAGG	AAGCTTGCAG	CCTGAAGGCC	CCACATTGAG	CCAAATCCAA	7900
GTTTGGCTAT	GGGGCAAAAG	ACGTCCGTTG	CCATCCGAGA	AAGGCGGTAG	7950
CCCACATCAA	CTOOGTGTGG	AAAGAOCCTC	TGGAAGACAG	TGTAACACCA	8000
ATAGACACTA	CCATCATGGC	CAAGAACGAG	GTTTTCTGCG	TTCAGCCTGA	8050
GAAGGGGGGT	CGTAAGCCAG	CTOGTCTCAT	CGTGTTCGCC	GACCTGGGCG	8100
TGCGCGTGTG	CGAGAAGATG	GCCCTGTACG	ACGTGGTTAG	CAAGCTCCCC	8150
CTGGCCGTGA	TGGGAAGCTC	CTACGGATTG	CAATACTCAC	CAGGACAGCG	8200
GGTTGAATTG	CTCGTGCAAG	CGTGGAAAGT	CAAGAAGACC	CCGATGGGGT	8250
TCTCGTATGA	TACCCGCTGT	TTTGACTCCA	CAGTCACTGA	GAGGACATC	8300
CGTACGGAGG	AGGCAATTTA	CCAATGTTGT	GACCTGGACC	CCCAAGCCCG	8350
CGTGGCCATC	AAGTCCCTCA	CTGAGAGGCT	TTATGTTGGG	GGCCCTCTTA	8400
CCAATTCAAG	GGGGGAAAAC	TGCGGCTACC	GCAGGTGCCG	CGCGAGCGGC	8450
GTA CTGACAA	CTAGCTGTGG	TAACACCCTC	ACTTGCTACA	TCAAGGCCCG	8500
GGCAGCCTGT	CGAGCCGCGAG	GGCTCCAGGA	CTGCACCATG	CTCGTGTGTG	8550
GCGACGACTT	AGTCGTTATC	TGTGAAAGTG	CGGGGGTCCA	GGAGGACCGG	8600
GCGAGCCTGA	GAGCCTTCAC	GGAGGCTATG	ACCAGGTA CT	CCGCCCCCCC	8650
CGGGGACCCC	CCACAACCAG	AATAAGACTT	GGAGCTTATA	ACATCATGCT	8700
CCTCCAACGT	GTCAGTCGCC	CACGACGGCG	CTGGAAAGAG	GGTCTACTAC	8750
CTTACCCGTG	ACCTTACAAC	CCCCCTCGCG	AGAGCCCGGT	GGGAGACAGC	8800
AAGACACACT	CCAGTCAATT	CCTGGCTAGG	CAACATAATC	ATGTTTGCCC	8850
CCACACTGTG	GGCGAGGATG	ATACTGATGA	CCATTTCTTT	TAGGTTCTTC	8900
ATAGCCAGGG	ATCAGCTTGA	ACAGGCTCTT	AAGTGTGAGA	TCTACGGAGC	8950
CTGCTACTCC	ATAGAACCAC	TGGATCTACC	TOCAATCATT	CAAAGACTCC	9000
ATGGCCTCAG	CGCATTTTCA	CTCCACAGTT	ACTCTCCAGG	TGAAATCAAT	9050
AGGGTGGCCG	CATGCCCTCAG	AAAACCTTGG	GTCCCGCCCT	TGCGAGCTTG	9100
GAGACACCGG	GCCCCGAGCG	TCCGCGCTAG	GCTTCTGTCC	AGAGGAGGCA	9150
GGGCTGCCAT	ATGTGGCAAG	TACCTCTTCA	ACTGGGCAGT	AAGAACAAAG	9200
CTCAAACCTCA	CTCCAATAGC	GGCCGCTGGC	CGGCTGGACT	TGTCCGGTTG	9250
GTTACCGGCT	GGCTACAGCG	GGGGAGACAT	TTATCACAGC	GTTCTCATG	9300
CCCGGCCCCG	CTGGTCTTGG	TTTGTGCTAC	TCCTGCTCGC	TGCAGGGGTA	9350
GGCATCTACC	TCCTCCCCAA	CCGATGAAGG	TGGGGTAAA	CATCCGGCC	9400
TCTTAAGCCA	TTTCCGTGTT	TTTTTTTTTT	TTTTTTTTTT	TTTTTCTTTT	9450
TTTTTTTCTT	TCCTTTCCCT	CTTTTTTTCC	TTCTTTTTTC	CCTTCTTTAA	9500

FIG. 6E

SUBSTITUTE SHEET (RULE 26)

H77C

10	20	30	40	50	
1234567890	1234567890	1234567890	1234567890	1234567890	
TGGTGGCTCC	ATCTTAGCCC	TAGTCACGGC	TAGCTGTGAA	AGGTCCGTGA	9550
GCCGCATGAC	TGCAGAGAGT	GCTGATACTG	GCCTCTCTGC	AGATCATGT	9599

FIG. 6F

H77C

10	20	30	40	50	
1234567890	1234567890	1234567890	1234567890	1234567890	
MSINPKPQK	TKRNINRRPQ	DVKFPGGGQI	VGGVYLLPRR	GPRLGVRATR	50
KTSERSQPRG	RRQPIPKARR	PEGRIWAQPG	YPWPLYGNEG	CGWAGWLLSP	100
RGSRPSWGPT	DPRRRSRNLG	KVIDTLTOGF	ADLMGYIPLV	GAPLGGAARA	150
LAHGVRVLED	GVNYATGNLP	GCSFSIFLLA	LLSCLTVPAS	AYQVRNSSL	200
YHVINDCENS	SIVYEAADAI	LHTPGCVPCV	REGNASROW	AVTPTVATRD	250
GKLPTTQLRR	HIDLLVGSAT	LCSALYVGDL	CGSVFLVGQL	FTFSPPRHWT	300
TQDCNCSTYP	GHITGHRMAW	DMMNWSPTA	ALVVAQLLRI	PQAIMDMIAG	350
AHWGVLGIA	YFSMVGWAK	VLVLLLFAG	VDAETHVTGG	NAGRITAGLV	400
GLLTPGAKQN	IQLININGSW	HINSTALNQN	ESLNTGWLAG	LFYQHKFNSS	450
GCPERLASCR	RLTDFAGQWG	PISYANGSGL	DERPYCWHYP	PRPGIVPAK	500
SVCGPVYCFT	PSPVAVGTID	RSGAPTYSWG	ANDIDVFLN	NIRPPLGNWF	550
GCTWMNSTGF	TKVCGAPPCV	IGGVGNNTLL	CPTDCFRKHP	EATYSRCGSG	600
PWITPRMVD	YPYRLWHYPC	TINYTIFKVR	MYVGVVEHRL	EAACNWIRGE	650
RCDLEDRLRS	ELSPLLLSTT	QWQVLPCSFT	TLPALSTGLI	HLHQNVIVDQ	700
YLYGVGSSIA	SWAIKWEYV	LLFLLLLADAR	VCSCUWMLL	ISQAEAALEN	750
LVIILNAASLA	GTHGLVSFLV	FFCFAWYKLG	RWVPGAVYAL	YGMWPLLLLL	800
LALPQRAYAL	DTEVAASCGG	VVLVGLMALT	LSPYYKRYIS	WQMWLQYFL	850
TRVEAQLHW	VPPLNVRGGR	DAVILLMCVV	HPTLVFDITK	LLAIFGPLW	900
ILQASLLKVP	YFVRVQGLLR	ICALARKIAG	GHYVQMAIHK	LGALTGTIVY	950
NHLTPLRDWA	HNGLRDLAVA	VEPVVFSRME	TKLITWGADT	AACGDIINGL	1000
PVSARRQOEI	LLGPADGMVS	KGWRLAPIT	AYAQQTRGLL	GCIITSLTGR	1050
DKNQVEGEVQ	IVSTATQIFL	ATCINGVCWT	VYHGAGIRTI	ASPKGPVIQM	1100
YTNVDQDLVG	WPAPQGSRL	TPCTCGSSDL	YLVRHADVI	PVRRRGDSRG	1150
SLLSRPPISY	LKGSSGGPLL	CPAGHAVGLF	RAAVCTRGVA	KAVDFIPVEN	1200
LGTIMRSFVF	TINSSPPAVP	QSFQVAHLHA	PTGSGKSTKV	PAAYAAQGYK	1250
VLVINPSVAA	TLGFGAYMSK	AHGVNENIRT	GVRTTTTGSP	ITYSTYGKFL	1300
ADGGCSGGAY	DIICDECHS	TDATSLIGIG	TVLDQAETAG	ARLVVLATAT	1350
PFGSVTVSHP	NIEEVALSTT	GEIPFYGKAI	PLEVIKGRH	LIFCHSKKKC	1400
DELAAKLVAL	GINAVAYYRG	LDVSVIPTSG	DVVVSTIDAL	MIGFTGDFDS	1450
VIDCNTCVIQ	TVDFSLDPTF	TIETTTLPQD	AVSRTQRRGR	TGRKPGTYR	1500
FVAPGERPSG	MFDSSVLCEC	YDAGCAWYEL	TPAETTVRLR	AYMNTPLPLV	1550
CQDHLEFWEG	VFTGLTHIDA	HFLSQTKQSG	ENFPYLWAYQ	ATVCARAQAP	1600
PPSWDQMKC	LIRLKPTLHG	PTPLLYRLGA	VQNEVILTHP	ITKYIMICMS	1650
ADLEVVTSTW	VLVGGVLAAL	AAYCLSTGCV	VTVGRIVLSG	KPAIIPDREV	1700
LYQEFDEMEE	CSQHLPYIEQ	GMLAEQFKQ	KALGLLQTAS	RHAEVITPAV	1750
QTNWQKLEVF	WAKHMANFIS	GIQYLAGLST	LPGNPAIASL	MAFTAAVTSP	1800
LITGQITLLFN	ILGGWAAQL	AAFGAATAFV	GAGLAGAAIG	SVGLGKVLVD	1850
ILAGYGAGVA	GALVAFKIMS	GEVPSTEDLV	NLLPAILSPG	ALVGVVCAA	1900

FIG. 6G

SUBSTITUTE SHEET (RULE 26)

09/980559

H77C

10	20	30	40	50	
1234567890	1234567890	1234567890	1234567890	1234567890	
ILRRHVGPG	E GAVQWMNRLI	AFASRGNHVS	PIHYVPESDA	AARVITAILSS	1950
LTVTQLLRRL	HQWISSECTT	PCSGSWLRDI	WDWICEVLSD	FKTWLKAKLM	2000
PQLPGIPFVS	CQRGYRGWWR	GDGIMHIRCH	CGAETTGHVK	NGIMRIVGPR	2050
TCRNMWSGIF	PINAYTTGPC	TPLPAPNYKF	ALWRVSAEY	VEIRRVGDFH	2100
YVSGMITDNL	KCPCQIPSPE	FFTELDGVRL	HRFAPPCKPL	LREEVSFRVG	2150
LHEYFVGSQ	L PCEPEPDVAV	LTSMLTDP	SH ITAEEAAGRRL	ARGSPPSMAS	2200
SSASQLSAPS	LKATCTANHD	SPDAELTEAN	LLWRQEMGGN	ITIRVESENKV	2250
VILDSFDPLV	AEEDEREVS	SV PAEILRKSR	R FARALPWAR	PDYNPPLVET	2300
WKKPDYEPV	VHGCPPLPPR	SPFVPPPRKK	RTVVLTESTL	STALAEIATK	2350
SFGSSSTSGI	TGDNITTSSE	PAPSGCPPDS	DVESYSSMPP	LEGEFGDPDL	2400
SDGSWSTVSS	GADTEDVOC	SMSYSWTGAL	VTPCAAEEQK	LPINALSNSL	2450
LRHHNLVYST	TSRSACQRQK	KVTFDRLQVL	DSHYQDVLKE	VKAAASKVKA	2500
NLLSVEEACS	LTPPHSAKSK	FGYGAKDVRC	HARKAVAHIN	SVWKDILED	2550
VTPIDITTIMA	KNEVFCVQPE	KGGRKPARLI	VFPDLGVRVC	EKMALYDVVS	2600
KLPLAVMGSS	YGFOYSPGQR	VEFLVQAWKS	KKTFMGFSYD	TRCFDSTVTE	2650
SDIRTEEAIY	QCCDLDPQAR	VAIKSLTERL	YVGGPLINSR	GENCGYRRCR	2700
ASGVLTTSCG	NLTICYIKAR	AACRAAGLQD	CTIMLVCGDDL	VVICESAGVQ	2750
EDAASLRAFT	EAMIRYSAPP	GDPPQPEYDL	ELITSCSSNV	SVAHDGAGKR	2800
VYYLTRDPTT	PLARAAWETA	RHTFVNSWL	G NIIMFAPTLW	ARMILMIHFF	2850
SVLIARDQLE	QALNCETYGA	CYSIEPLDLP	PIIQRLHGLS	AFSLHSYSPG	2900
EINRVAACLR	KLGVPPLRAW	RHRARSVRAR	LLSRGGRAAI	CGKYLFWNAV	2950
RTKLKLTPIA	AAGRDLDSGW	FTAGYSGGDI	YHSVSHARPR	WFWFCLLLLA	3000
AGVGITYLLPN	R				3011

FIG. 6H

HC-J4

10	20	30	40	50	
1234567890	1234567890	1234567890	1234567890	1234567890	
GCCAGCCCCC	TGATGGGGGC	GACACTCCAC	CATGAATCAC	TCCCTGTGA	50
GGAACACTG	TCTTCACGCA	GAAAGCGTCT	AGCCATGGCG	TTAGTATGAG	100
TGTGCTGCAG	CCTCCAGGAC	CCCCCTCC	GGGAGAGCCA	TAGTGGTCTG	150
CGGAACCGGT	GAGTACACCG	GAATTGCCAG	GACGACCGGG	TCCTTTCTTG	200
GATCAACCG	CTCAATGCCT	GGAGATTTGG	GCGTGCCCC	GCGAGACTGC	250
TAGCCGAGTA	GTGTGTGGTTC	GCGAAAGGCC	TTGTGGTACT	GCCTGATAGG	300
GTGCTTGCGA	GTGCCCCGGG	AGGTCTCGTA	GACCGTGCAC	CATGAGCAAG	350
AATCCTAAAC	CTCAAAGAAA	AACCAAACGT	AACACCAACC	GCCGCCACA	400
GGACGTCAAG	TTCCCGGGCG	GTGGTCAGAT	CGTTGGTGGG	GTTTACCTGT	450
TGCCGCGCAG	GGGCCCCAGG	TTGGGTGTGC	GCGGACTAG	GAAGGCTTCC	500
GACCGGTGCG	AACCTCGTGG	AAGGCGACAA	CCTATCCCAA	AGGCTGCGCG	550
ACCCGAGGGC	AGGGCCTGGG	CTCAGCCCGG	GTAACCTTGG	CCCTCTATG	600
GCAATGAGGG	CCTGGGGTGG	GCAGGATGGC	TCCTGTACAC	CCGCGGCTCC	650
CGGCTAGTT	GGGGCCCCAC	GGACCCCCCG	CGTAGGTGCG	GTAACCTGGG	700
TAAGGTCATC	GATACCTTA	CATGCGGCTT	CGCCGATCTC	ATGGGGTACA	750
TTCCGCTCGT	CGGCGCCCC	CTAGGGGGCG	CTGCCAGGGC	CTTGGCACAC	800
GGTGTCCGGG	TTCTGGAGGA	CGGCGTGAAC	TATGCAACAG	GGAACCTGCC	850
CGGTGTCTCT	TTCTCTATCT	TCCTCTTGGC	TCTGCTGTCC	TGTTTGAOCA	900
TCCAGCTTC	CGCTTATGAA	GTGCGCAACG	TGTCCGGGAT	ATACCATGTC	950
ACGAACGACT	GCTCCAACCTC	AAGCATTGIG	TATGAGGCAG	CGGACGTGAT	1000
CATGCATACT	CCCGGGTGGG	TGCCCTGTGT	TCAGGAGGGT	AACAGCTCCC	1050
GTTGCTGGGT	AGCGCTCACT	CCCACGCTCG	CGGCCAGGAA	TGCCAGCGTC	1100
CCCACTACGA	CAATACGACG	CCACGTGAC	TTGCTCGTTG	GGACGGCTGC	1150
TTTCTGCTCC	GCTATGTACG	TGGGGGATCT	CTGCCGATCT	ATTTTCTCTG	1200
TCTCCAGCT	GTTACCTTTC	TGCGCTCGCC	GGCATGAGAC	AGTGCAGGAC	1250
TGCAACTGCT	CAATCTATCC	CGGCCATGTA	TCAGGTACAC	GCATGGCTTG	1300
GGATATGATG	ATGAACCTGGT	CACCTACAAC	AGCCCTAGTG	GTGTGCGAGT	1350
TGCTCCGGAT	CCCACAAGCT	GTCGTGGACA	TGGTGGCGGG	GGCCCACTGG	1400
GGAGTCCCTGG	CGGGCCTTGC	CTACTATTCC	ATGGTAGGGA	ACTGGGCTAA	1450
GGTTCGTGATT	GTGGCGCTAC	TCTTTGCCCG	CGTTGACGGG	GAGACCCACA	1500
CGACGGGGAG	GGTGGCCGGC	CACACCACCT	CCGGGTTCAC	GTCCCTTTTC	1550
TCATCTGGGG	CGTCTCAGAA	AATCCAGCTT	GTGAATACCA	ACGGCAGCTG	1600
GCACATCAAC	AGGACTGCC	TAAATTGCAA	TGACTCCCTC	CAAACCTGGT	1650
TCTTTGCCGC	GCTGTTTTAC	GCACACAAGT	TCAACTCGTC	CGGGTGGCCG	1700
GAGCGCATGG	CCAGCTGCCG	CCCCATTGAC	TGGTTCGCC	AGGGGTGGGG	1750
CCCCATCACC	TATACTAAGC	CTAACAGCTC	GGATCAGAGG	CCTTATGCT	1800
GGCATTACGC	GCCTCGACCG	TGTGGTGTGG	TACCCGGGTC	GCAGGTGTGT	1850
GGTCCAGTGT	ATTGTTCAC	CCCAAGCCCT	GTGTGTGGTGG	GGACCACCGA	1900

FIG. 7A

SUBSTITUTE SHEET (RULE 26)

HC-J4

10	20	30	40	50	
1234567890	1234567890	1234567890	1234567890	1234567890	
TCGTTCCGGT	GTCCCTACGT	ATAGCTGGGG	GGAGAATGAG	ACAGACGTGA	1950
TGCTCCTCAA	CAACACGGGT	CCGCCACAAG	GCAACTGGTT	CGGCTGTACA	2000
TGGATGAATA	GTACTGGGTT	CACTAAGACG	TGCGGAGGTC	CCCCGTGTAA	2050
CATCGGGGGG	GTCGGTAACC	GCACCTTGAT	CTGCCCCACG	GA CTGCTTCC	2100
GGAAGCACCC	CGAGGCTACT	TACACAAAAT	GTTGGCTGGG	GCCCTGGTTG	2150
ACAACCTAGG	GCTTAGTAGA	CTACCCATAC	AGGCTTTGGC	ACTAACCCCTG	2200
CACCTCTCAAT	TTTTCCATCT	TTAAGGTTAG	GATGTATGTG	GGGGGGGTGG	2250
AGCACAGGCT	CAATGCCGCA	TGCAATTGGA	CTCGAGGAGA	GCGCTGTAAAC	2300
TTGGAGGACA	GGGATAGGTC	AGAACTCAGC	CCGCTGCTGC	TGCTTACAAC	2350
AGAGTGGCAG	ATACTGCCCT	GTGCTTTTAC	CACCCTAACG	GCTTTATCCA	2400
CTGGTTTGTAT	CCATCTCCAT	CAGAACATCG	TGGACGTGCA	ATACTGTATC	2450
GGTGTAGGGT	CAGCGTTTGT	CTCCTTTTGA	ATCAAATGGG	AGTACATCCT	2500
GTTCCTTTTC	CTTCTCCTGG	CAGACGGCGG	CGTGTGTGCC	TGCTTGTGGA	2550
TGATGCTGCT	GATAGCCCAG	GCTGAGGCGG	CCTTAGAGAA	CTTGGTGGTC	2600
CTCAATGCGG	CGTCCGTGGC	CGGAGCGCAT	GGTATTCTCT	CCTTTCTTGT	2650
GTCTTCTGTC	GCCGCCCTGG	ACATTAAAGG	CAGGCTGGCT	CCGCGGGCGG	2700
CGTATGCTTT	TTATGGCGTA	TGGCCGCTGC	TCCTGCTCCT	ACTGGCGTTA	2750
CCACCACGAG	CTTACGCCCT	GGACCGGGAG	ATGGCTGCAT	CGTGGGGGGG	2800
TGCGGTCTCT	GTAGGCTCTG	TATTCTTTGAC	CTTGTACCCA	TACTACAAAG	2850
TGTTTCTCAC	TAGGCTCATA	TGGTGGTTTAC	AATACTTTAT	CACCAGAGCC	2900
GAGGCGCACA	TGCAAGTGTG	GGTCCCCCCC	CTCAACGTTT	GGGAGGCGCG	2950
CGATGCCATC	ATCCTCCTCA	CGTGTGCGGT	TCATCCAGAG	TTAATTTTTG	3000
ACATCACCAA	ACTCCTGCTC	GCCATACTCG	GCCCCGTCAT	GGTGTCTCAG	3050
GCTGGCATAA	CGAGAGTGCC	GTACTTCTGT	CGCGCTCAAG	GGCTCATTCG	3100
TGCATGCATG	TTAGTGCAGAA	AAGTCCCGCG	GGGTCATTAT	GTCCAAATGG	3150
TCTTCATGAA	GCTGGGCGCG	CTGACAGGTA	CGTACGTTTA	TAACCATCTT	3200
ACCCCACTGC	GGGACTGGGC	CCACGCGGGC	CTACGAGACC	TGTGGGTGGC	3250
GGTAGAGCCC	GTCGTCTTCT	CCGCCATGGA	GACCAAGGTC	ATCAOCTGGG	3300
GAGCAGACAC	CGCTGCGTGT	GGGGACATCA	TCTTGGGTCT	ACCCGTCTCC	3350
GCCCGAAGGG	GGAAGGAGAT	ATTTTGTGGG	CCGCTGATA	GTCTCGAAGG	3400
GCAAGGGTGG	CGACTCCTTG	CGCCCATCAC	GGCCTACTCC	CAACAAACGC	3450
GGGGCGTACT	TGGTTGCATC	ATCACTAGCC	TCACAGGCGG	GGACAAGAAC	3500
CAGGTGGAAG	GGGAGGTTCA	AGTGGTTTCT	ACCGCAACAC	AATCTTTTCT	3550
GGCGACCTGC	ATCAACGGCG	TGTGCTGGAC	TGCTTACCAT	GGCGCTGGCT	3600
CGAAGACCTT	AGCCGGTCCA	AAAGGTCCAA	TCACCCAAAT	GTACACCAAT	3650
GTAGACCTGG	ACCTCGTCCG	CTGGCAGGCG	CCCCCGGGGG	CGCGCTCCAT	3700
GACACCATGC	AGCTGTGGCA	GCTCGGACCT	TTACTTGGTC	ACGAGACATG	3750
CTGATGTICAT	TCCGGTGGCG	CGGCGAGGCG	ACAGCAGGGG	AAGTCTACTC	3800

FIG. 7B

SUBSTITUTE SHEET (RULE 26)

HC-J4

10	20	30	40	50	
1234567890	1234567890	1234567890	1234567890	1234567890	
TCCCCAGGC	CCGTCCTCTA	CCTGAAAGGC	TCCTGGGGTG	GTCCATTGCT	3850
TTGCCCCTTG	GGGCACTG	TGGGCGTCTT	CCGGGCTGCT	GTGTGCACCC	3900
GGGGGGTGG	GAAGGCGGTG	GACTTCATAC	CCGTTGAGTC	TATGGAAACT	3950
ACCATGGGGT	CTCCGGTCTT	CACAGACAAC	TCAACCCCCC	CGGCTGTACC	4000
GCAGACATTC	CAAGTGGCAC	ATCTGCACGC	TCCTACTGGC	AGCGGCAAGA	4050
GCACCAAAGT	GCCGGCTGG	TATGCAGCCC	AAGGGTACAA	GGTGCTGGTC	4100
CTGAACCCGT	CCGTTGGCGC	CACCTTAGGG	TTTGGGGGGT	ATATGTCCAA	4150
GGCACACGGT	ATCGACCTTA	ACATCAGAAC	TGGGGTAAAG	ACCATTACCA	4200
CGGGCGGCTC	CATTACGTAC	TCCACCTATG	GCAAGTTCTT	TGCGGACGGT	4250
GGCTGTCTTG	GGGGCGCTTA	TGACATCATA	ATATGTGATG	AGTGCCACTC	4300
AACTGACTCG	ACTACCATCT	TGGGCATGGG	CACAGTCTTG	GACCAAGGGG	4350
AGACGGCTGG	AGCGCGGCTC	GTCTGTCTTG	CCACCGCTAC	ACCTCCGGGA	4400
TCGGTTACCG	TGCCACACCC	CAATATCGAG	GAAATAGGOC	TGTCCAACAA	4450
TGGAGAGATC	CCCTTCTATG	GCAAAGOCAT	CCCATTTGAG	GCCATCAAGG	4500
GGGGGAGGCA	TCTCATTTTC	TGCCATTCCA	AGAAGAAATG	TGACGAGCTC	4550
GCCGCAAAGC	TGACAGGGCT	CGGACTGAAC	GCTGTAGCAT	ATTACCGGGG	4600
CCTTGATGTG	TCCGTCATAC	CGCCTATCGG	AGACGTCTGT	GTCTGTGCAA	4650
CAGACGCTCT	AATGACGGGT	TTCACCGGGG	ATTTTGACTC	AGTGATCGAC	4700
TGCAATACAT	GTGTACCCCA	GACAGTCGAC	TTCAGCTTGG	ATCCACCTTT	4750
CACCATTTGAG	ACGACGACCG	TGCCCCAAGA	CGCGGTGTCT	CGCTCGCAAC	4800
GGCGAGGTAG	AACTGGCAGG	GGTAGGAGTG	GCATCTACAG	GTTTGTGACT	4850
CCAGGAGAAC	GGCCCTCGGG	CATGTTTCGAT	TCTTCGGTCC	TGTGTGAGTG	4900
CTATGACCGG	GGCTGTGCTT	GGTATGAGCT	CACGCCCCGT	GAGACCTCGG	4950
TTAGGTTGGG	GGCTTACCTA	AATACACCAG	GGTTGCCCGT	CTGCCAGGAC	5000
CATCTGGAGT	TCTGGGAGAG	CGTCTTCACA	GGCCTCACCC	ACATAGATGC	5050
CCACTTCTTG	TCCCAGACTA	AACAGGCAGG	AGACAACCTT	CCTTACCTGG	5100
TGGCATATCA	AGCTACAGTG	TGCGCCAGGG	CTCAAGCTCC	ACCTCCATCG	5150
TGGGACCAAA	TGTGGAAGTG	TCTCATACGG	CTGAAACCTA	CACTGCACGG	5200
GCCAACACCC	CTGCTGTATA	GGCTAGGAGC	CGTCCAAAAT	GAGGTCATCC	5250
TCACACACCC	CATAACTAAA	TACATCATGG	CATGCATGTC	GGCTGAOCTG	5300
GAGGTCTGTA	CTAGCACCTG	GGTGCTGGTA	GGCGGAGTCC	TTGCAGCTTT	5350
GGCCGCATAC	TGCTTGACGA	CAGGCAGTGT	GGTCATTGTG	GGCAGGATCA	5400
TCTTGTCGGG	GAAGCCAGCT	GTCTGTCCCG	ACAGGGAAGT	CCTCTACCAG	5450
GAGTTCTGATG	AGATGGAAGA	GTGTGCCCTCA	CAACTTCTTT	ACATCGAGCA	5500
GGGAATGCAG	CTCGCCGAGC	AATTCAAGCA	AAAGGCGCTC	GGTTGTGTGC	5550
AAACGGCCAC	CAAGCAAGCG	GAGGCTGCTG	CTCCCGTGGT	GGAGTCCAAG	5600
TGGCGAGCCC	TTGAGACCTT	CTGGGCGAAG	CACATGTGGA	ATTTTCATCAG	5650
CGGAATACAG	TACCTAGCAG	GCTTATCCAC	TCTGCTGGA	AAOCCCGCGA	5700

FIG. 7C

SUBSTITUTE SHEET (RULE 26)

HC-J4

10	20	30	40	50	
1234567890	1234567890	1234567890	1234567890	1234567890	
TAGCATCATT	GATGGCATT	ACAGCTTCTA	TCACTAGCCC	GCTCACCACC	5750
CAAAACACCC	TCCIGTTTAA	CATCTTGGGG	GGATGGGTGG	CTGCCCCAAT	5800
CGCTCCTCCC	AGCGCTGCGT	CAGCTTTTGT	GGGCGCCGGC	ATGCGCGGAG	5850
CGGCTGTTGG	CAGCATAGGC	CTTGGGAAGG	TGCTCGTGGG	CATCTTGGCG	5900
GGCTATGGGG	CAGGGGTAGC	CGGCGCACTC	GTGGCCTTTA	AGGTCATGAG	5950
CGGCGAGGTG	CCCTCCACCG	AGGACCTGGT	CAACTTACTC	CCTGCCATCC	6000
TCTCTCCTGG	TGCCCCGGTC	GTCGGGGTGG	TGTGGCGAGC	AATACTGGGT	6050
CGGCAAGTGG	GCCCCGGGAG	GGGGGCTGTG	CAGTGGATGA	ACCGGCTGAT	6100
AGCGTTGGCT	TGCGGGGGTA	ACCAAGTCTC	CCCTAAGCAC	TATGTGCGTG	6150
AGAGCGAAGC	TGCAGCAAGT	GTCACTCAGA	TCCCTCTTAG	CCCTAOCATC	6200
ACTCAACTGC	TGAAGCGGCT	CCACAGTGG	ATTAAATGAG	ACTGCTCTAC	6250
GCCATGCTCC	GGCTCGTGGC	TAAGGGATGT	TTGGGATTGG	ATATGCAAGG	6300
TGTTGACTGA	CTTCAAGACC	TGGCTCCAGT	CCAAACTCCT	GCCGCGGTAA	6350
CCGGGAGTCC	CTTTCCCTGT	ATGCCAACGC	GGGTACAAGG	GAGTCTGGCG	6400
GGGGGACGGC	ATCATGCAAA	CCACCTGCCC	ATGCGGAGCA	CAGATCGCCG	6450
GACATGTCAA	AAACGGTTCC	ATGAGGATCG	TAGGGCCTAG	AACCTGCAGC	6500
AACACGTGGC	ACGGAACGTT	CCCCATCAAC	GCATACACCA	CGGGACCTTG	6550
CACACCCTCC	CCGGCGCCCA	ACTATTCCAG	GGCGCTATGG	CGGGTGGCTG	6600
CTGAGGAGTA	CGTGGAGGTT	ACCGGTGTGG	GGGATTTCCA	CTAAGTGACG	6650
GGCATGACCA	CTGACAACGT	AAAGTGCCCA	TGCCAGGTTC	CGCCCCCGGA	6700
ATTCTTCACG	GAGGTGGATG	GAGTGCCTGT	GCACAGGTAC	GCTCCGCGGT	6750
GCAAACCTCT	TCTACGGGAG	GACGTCAAGT	TCCAGGTGGG	GCTCAACCAA	6800
TACTTGGTCC	GGTCGCAGCT	CCCATGCGAG	CCCGAACCGG	ACGTAAACAGT	6850
GCTTACTTCC	ATGCTCACCG	ATCCCTCCCA	CATTACAGCA	GAGACGGCTA	6900
AGCGTAGGCT	GGCTAGAGGG	TCTCCCCCCT	CTTTAGCCAG	CTCATCAGCT	6950
AGCCAGTTGT	CTGCGCCTTC	TTTGAAGGCG	ACATGCACTA	CCACCATGA	7000
CTCCCCGGAC	GCTGACCTCA	TGGAGGCCAA	CCTCTTGTGG	CGGCAGGAGA	7050
TGGGCGGAAA	CATCACTCGC	GTGGAGTCAG	AGAATAAGGT	AGTAATTCTG	7100
GACTCTTTCC	AACCGCTTCA	CGCGGAGGGG	GATGAGAGGG	AGATATCCGT	7150
CGCGCGGAG	ATCCTGCGAA	AATCCAGGAA	GTTCCTCTCA	GCGTTGCCCA	7200
TATGGGCACG	CCCGGACTAC	AATCCTCCAC	TGCTAGAGTC	CTGGAAGGAC	7250
CCGGACTACG	TCCCTCCGGT	GGTACACGGA	TGCCCATTGC	CACCTACCAA	7300
GGCTCCTCCA	ATACCACCTC	CACGGAGAAA	GAGGACGGTT	GTCCTGACAG	7350
AATCCAATGT	GTCTTCTGCC	TTGGCGGAGC	TGCCCACATA	GACCTTCGGT	7400
AGCTCCGGAT	CGTCGGCCGT	TGATAGCGGC	ACGGCGACCG	CCCTTCTCTA	7450
CCTGGCCTCC	GACGACGGTG	ACAAAGGATC	CGACGTTGAG	TGCTACTCCT	7500
CCATGCCCCC	CCTTGAAGGG	GAGCCGGGGG	ACCCCGATCT	CAGCGACGGG	7550
TCTTGGTCTA	CCGTGAGTGA	GGAGGCTAGT	GAGGATGTGG	TCTGCTGCTC	7600

FIG. 7D

SUBSTITUTE SHEET (RULE 26)

HC-J4

10	20	30	40	50	
1234567890	1234567890	1234567890	1234567890	1234567890	
AATGTCTAT	ACGTGGACAG	GCGCCCTGAT	CACGCCATGC	GCTGOGGAGG	7650
AAAGTAAGCT	GCCCATCAAC	COGTTGAGCA	ACTCTTTTCT	GCGTCACCAC	7700
AACATGGTCT	ACGCCACAAC	ATCCCGCAGC	GCAAGCCTCC	GGCAGAAGAA	7750
GGTCACCTTT	GACAGATTGC	AAGTCTGGA	TGATCATTAC	CGGGACGTAC	7800
TCAAGGAGAT	GAAGGCGAAG	GCGTCCACAG	TTAAGGCTAA	GCTTCTATCT	7850
ATAGAGGAGG	CCTGCAAGCT	GACGCCCCCA	CATTGGGCCA	AATCCAAATT	7900
TGGCTATGGG	GCAAAGGACG	TCCGGAACTT	ATCCAGCAGG	GCGTTAAAC	7950
ACATCCGCTC	CGTGTGGGAG	GACTTGCTGG	AAGACACTGA	AACACCAATT	8000
GACACCACCA	TCATGGCAAA	AAGTGAGGTT	TTCTGGGTCC	AACCAGAGAA	8050
GGGAGGCGGC	AAGCCAGCTC	GCCTTATCGT	ATTCCAGAC	CTGGGAGTTC	8100
GTGTATGCGA	GAAGATGGCC	CTTTACGAAG	TGGTCTCCAC	CCTTCTCCAG	8150
GCCGTGATGG	GCTCTTCATA	CGGATTTCAA	TACTCCCCCA	AGCAGGGGGT	8200
CGAGTTCTTG	GTGAATACCT	GGAATCAAA	GAAATGCOCT	ATGGGCTTCT	8250
CATATGACAC	CCGCTGTTTT	GACTCAACGG	TCATGAGAG	TGACATTCTG	8300
GTTGAGGAGT	CAATTTACCA	ATGTTGTGAC	TTGGCCCCCG	AGGCCAGACA	8350
GGCCATAAGG	TGGCTCACAG	AGCGGCTTTA	CATCGGGGGT	CCCCTGACTA	8400
ACTCAAAAGG	GCAGAACTGC	GGTTATCGCC	GGTGCCGGCC	AAGTGGGGTG	8450
CTGACGACTA	GCTGCGGTAA	TACCCCTACA	TGTTACTTGA	AGGCCACTGC	8500
AGCCTGTGCA	GCTGCAAAGC	TCCAGGACTG	CACGATGCTC	GTGAACGGAG	8550
ACGACCTTGT	CGTTATCTGT	GAAAGCGCGG	GAACCCAGGA	GGATGCGGGC	8600
GCCCTACGAG	CCTTCACGGA	GGCTATGACT	AGGTAATTCG	CCCCCCCCCG	8650
GGATCCGCCC	CAACCAGAA	ACGACCTGGA	GCTGATAACA	TCATGTTCTT	8700
CCAATGTGTC	AGTCGCGCAC	GATGCATCTG	GCAAAAGGGT	ATACTACCTC	8750
ACCCGTGACC	CCACCACCCC	CCTTGACCGG	GCTGCGTGGG	AGACAGCTAG	8800
ACACACTCCA	ATCAACTCTT	GGCTAGGCAA	TATCATCATG	TATGCGCCCCA	8850
CCCTATGGGC	AAGGATGATT	CTGATGACTC	ACTTTTCTTC	CATCCTTCTA	8900
GCTCAAGAGC	AACITGAAAA	AGCCCTGGAT	TGTCAGATCT	ACGGGGCTTG	8950
CTACTCCATT	GAGCCACTTG	ACCTACCTCA	GATCATTGAA	CGACTCCATG	9000
GTCTTAGCGC	ATTACACTC	CACAGTTACT	CTCCAGGTGA	GATCAATAGG	9050
GTGGCTTCAT	GCCTCAGGAA	ACTTGGGGTA	CCACCCCTGC	GAACCTGGAG	9100
ACATCGGGCC	AGAAGTGTCC	GCGCTAAGCT	ACTGTCCCAG	GGGGGGAGGG	9150
CCGCCACTTG	TGGCAGATAC	CTCTTTAACT	GGGCAGTAA	GACCAAGCTT	9200
AAACTCACTC	CAATCCCGGC	CGCGTCCCAG	CTGGACTTGT	CTGGCTGGTT	9250
CGTCGCTGGT	TACAGCGGGG	GAGACATATA	TCACAGCCTG	TCTCGTGCCC	9300
GACCCCGCTG	GTTCGCTTG	TGCCTACTCC	TACTTTCTGT	AGGGGTAGGC	9350
ATTTACCTGC	TCCCCAACCG	ATGAACGGGG	AGCTAACCAC	TCCAGGCCTT	9400
AAGCCATTTC	CTGTTTTTTT	TTTTTTTTTT	TTTTTTTTTT	TCTTTTTTTT	9450
TTTCTTCTCT	TTCTTCTTT	TTTCTCTTC	TTTTTCCCTT	CTTTAATGGT	9500

FIG. 7E

SUBSTITUTE SHEET (RULE 26)

10	20	30	40	50	
1234567890	1234567890	1234567890	1234567890	1234567890	
GGCTCCATCT	TAGCCCTAGT	CACGGCTAGC	TGIGAAAGGT	CCGIGAGCCG	9550
CATGACTGCA	GAGAGTGCTG	ATACTGGCCT	CTCTGCAGAT	CATGT	9595

FIG. 7F

10	20	30	40	50	
1234567890	1234567890	1234567890	1234567890	1234567890	
MSINPKPQRK	TKRNINRRPQ	DVKFPGGGQI	VGGVYLLPRR	GPRLGVRATR	50
KASERSQPRG	RRQPIPKARR	PEGRAWAQPG	YFWPLYGNEG	LGWAGWLLSP	100
RGSRPSWGPT	DPRRRSRNLG	KVIDILTCGF	ADLMGYIPLV	GAPLGGAARA	150
LAHGVRVLED	GVNYATGNLP	GCSFSIFLLA	LLSCLTIPAS	AYEVRNVSGI	200
YHVINDCSNS	SIVYEAADVI	MHTPGCVPCV	QEGNSSROW	ALTPILAARN	250
ASVPTTTIRR	HVDLLVGTA	FCSAMYVDL	CGSIFLVSQ	FTFSPRRHET	300
VQDONCSTYP	GHSVGHMAW	DMMNWSPTT	ALVVSQLLRI	PQAVVDMVAG	350
AHWGVLAGLA	YYSMGNWAK	VLIVALLFAG	VDGEIHTTGR	VAGHTTSGFT	400
SLFSSGASQK	IQLVNINGSW	HINRIALNON	DSLQIGFFAA	LFYAHKFNSS	450
GCPERMASCR	PIDWFAQGAG	PITYTKFNSS	DQRFYCHYZA	PRPGVVPAS	500
QVCGPVYCF	PSPVVGTID	RSGVPTYSWG	ENEIDVMLLN	NIRPPQGNWF	550
GCTWMNSTGF	TKTCGGPPCN	IGGVGNRILI	CPIDCFRKHP	EATYIKOGSG	600
PWLTPRCLVD	YPYRLWHYPC	TLNFSIFKVR	MYVGGVEHRL	NAAONWIRGE	650
RCNLEDRRDS	ELSPILLSTT	EWQILPCAFT	TLPALSTGLI	HLHQNIVDVQ	700
YLYGVGSAFV	SFAIKWEYIL	LLFLLLADAR	VCACIWMMLL	IAQAEAALEN	750
LVLNAASVA	GAHGILSFLV	FFCAAWYIKG	RLAPGAAYAF	YGVWPLLLLL	800
LALPPRAYAL	DREMAASCGG	AVLVGLVFLT	LSPYYKVFLT	RLTWLQYFT	850
TRAEAHMQW	VPPLNVRGGR	DAIILLTCAV	HPELIFDITK	LLAILGLPLM	900
VLQAGITRVP	YFVRAQGLIR	ACMLVRKVAG	GHYVQMVFMK	LGALTGTIVY	950
NHLTPLRDWA	HAGLRDLAVA	VEPVVFSAME	TKVTTWGADT	AACGDIILGL	1000
PVSARRKEI	FLGPADSLEG	QGWRLAPIT	AYSQQTGRVL	GCIITSLTGR	1050
DKNQVEGEVQ	VVSTATQSF	ATCINGVCWT	VYHGAGSKTL	AGPKGPITQM	1100
YTNVDLIDVG	WQAPPGARSM	TPCSCGSSDL	YLVTRHADVI	PVRRRGDSRG	1150
SLLSPRPVSY	LKGSSGGPLL	CPSGHVGVF	RAAVCTRGVA	KAVDFIPVES	1200
METIMRSPVF	TINSTPPAVP	QTFQVAHLHA	PTGSGKSTKV	PAAYAAQGYK	1250
VLVLNPSVAA	TLGFGAYMSK	AHGIDENIRT	GVRTTTTGG	ITYSTYGF	1300
ADGGCSGGAY	DIICDECHS	TDSTTILGIG	TVLDQAETAG	ARLVLATAT	1350
PPGSVTVPH	NIEEIGLSNN	GEIPFYGKAI	PIEAIKGRH	LIFCHSKKCC	1400
DELAAKLTGL	GLNAVAYYRG	LDVSVIPPIG	DVVVAITDAL	MIGFTGDFDS	1450
VIDQNTCVIQ	TVDFSLDPTF	TIETTTVPQD	AVSRSQRRGR	TGRGRSGIYR	1500
FVTPGERPSG	MFDSSVLCEC	YDAGCAWYEL	TPAETSVRLR	AYLNTFGLPV	1550
QQHLEFWES	VFTGLTHIDA	HFLSQTKQAG	DNFPYLVAYQ	ATVCARAQAP	1600
PPSWDQWKC	LIRLKPTLHG	PTPLLYRLGA	VQNEVILTHP	ITKYIMQMS	1650
ADLEVVTSTW	VLVGGVLAAL	AAYCLTTGSV	VIVGRIILSG	KPAVVPDREV	1700
LYQEFDEMEE	CASQLPYTEQ	GMQLAEQFKQ	KALGLLQTAT	KQAEAAAPVV	1750
ESKWRALEIF	WAKHMNFIS	GIQYLAGLST	LFGNPAIASL	MAFTASTTSP	1800
LTTQNTLLFN	ILGGWAAQL	APPSAASAFV	GAGIAGAAGV	SIGLGKVLVD	1850
ILAGYGAGVA	GALVAFKMS	GEVPSTEDLV	NLLPAILSPG	ALVGVVCAA	1900

FIG. 7G

09/9/0550

10	20	30	40	50	
1234567890	1234567890	1234567890	1234567890	1234567890	
ILRRHVGPGE	GAVQWMNRLI	AFASRGNHVS	PIHYVPESDA	AARVTQILSS	1950
LTTTQLLKRL	HQWINEDCST	PCSGSWLRDV	WDWICTVLTD	FKTWLQSKLL	2000
PRLPGVPFLS	CQRGYKGWR	GDGIMQITCP	CGAQIAGHVK	NGSMRIVGPR	2050
TCSNIWHGIF	PINAYTTGFC	TPSPAPNYSR	ALWRVAAEEY	VEVIRVGDFH	2100
YVTGMTIDNV	KCPCQVPAPF	FFTEVDGVRL	HRYAPACKPL	IREDVIFQVG	2150
LNQYLVSQSL	PCEPEPDVIV	LTSMLTDPHS	TTAETAKRRL	ARGSPPSLAS	2200
SSASQLSAPS	LKATCTTHHD	SPDADLJEAN	LUWRQEMGGN	IRVESENKV	2250
VILDSFEPLH	AEGDERETSV	AAEILRKSRK	FPSALPTIWAR	PDYNPPLLES	2300
WKDPDYVPPV	VHGCPLPPIK	APPIPPPRRK	RIVVLITESNV	SSALAEIATK	2350
TFGSSGSSAV	DSGTATALPD	LASDDGKGS	DVESYSSMPP	LEGERGDPDL	2400
SDGSWSTVSE	EASEDVVCCS	MSYTWIGALI	TPCAAEESKL	PINPLSNSLL	2450
RHHNMVYATT	SRSASLRQKK	VTFDRLQVLD	DHYRDVLKEM	KAKASTVKAK	2500
LLSIEEACKL	TPPHSAKSKF	GYGAKDVRNL	SSRAVNHIRS	WEDLLEDTE	2550
TPIDTTIMAK	SEVFCVQPEK	GGRKPARLIV	FPDLGVRVCE	KMALYDVVST	2600
LPQAVMGSSY	GFQYSPKQRV	EFLVNIWWSK	KCPMGFSYDT	RCFDSTVIES	2650
DIRVEESTYQ	CCDLAPEARQ	AIRSLTERLY	IGGPLINSKG	QNOGYRRORA	2700
SGVLITSCGN	TLTCYLKATA	ACRAAKLQDC	TMLVNGDDL	VICESAGTQE	2750
DAAALRAFTE	AMIRYSAPPG	DPPQPEYDLE	LITSCSSNVS	VAHDASGRV	2800
YYLTRDPTTP	LARAAWETAR	HTPINSWLGN	IIMYAPTLWA	RMILMIHFFS	2850
ILLAQBQLEK	ALDCQIYGAC	YSIEPLDLPO	IIERLHGLSA	FTLHSYSPGE	2900
INRVASCLRK	LGVPPFLRTWR	HRARSVRACL	LSQGGRAATC	GRYLFNWAVR	2950
TKLKLTPIPA	ASQLDLSGWF	VAGYSGGDIY	HSLSRARPRW	FPLCLLLLSV	3000
GVGIYLLFNR					3010

FIG. 7H